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From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
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Ham-Ant Digest Mon, 3 Jan 94 Volume 93 : Issue 161

Today's Topics:

Any comments on the Comet B20NMO?
Commercial Antenna Tuners
Help Getting Cables Inside
Where to get ladder feed

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Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

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(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Mon, 03 Jan 1994 00:43:27 -0500
From: nntp.club.cc.cmu.edu!godot.cc.duq.edu!toads.pgh.pa.us!fuzbat.pgh.pa.us!
user@uunet.uu.net
Subject: Any comments on the Comet B20NMO?
To: ham-ant@ucsd.edu

Net Gang,

I'm looking for a new dual band antenna for my car. This was
necessitated by a thief having ripped my old one off in a fit of anxiety
over not being able to get into the trunk, I mean, he got my broadcast
radio, what more did he want?

I'm interested in an antenna that is not obviously connected to bunch
of expensive/merchandisable gear, and think that one of the
"pseudo-cellular" looking antennas would be a good idea (this car is parked
on the street in Pittsburgh, PA. Not exactly the crime capital of the
world, but also no Peoria).

As I was interested in antennas of this type, the Comet B20NMO looked like a good compromise. Does anyone have any comments on this antenna, or suggestions for other antennas that fit my requirements? Thanks in advance...

Steve

Date: 2 Jan 1994 11:18:42 -0800
From: usc!howland.reston.ans.net!agate!library.ucla.edu!csulb.edu!
paris.ics.uci.edu!not-for-mail@network.ucsd.edu
Subject: Commercial Antenna Tuners
To: ham-ant@ucsd.edu

Reference the MFJ 986, I just got one (for a very fine price from a very fine ham!), but (if I didn't already post this about it) - I am very DISAPPOINTED in the quality of the unit. It DOES tune a very wide range of impedances. That is good about it.

The roller does not make a very positive connection (as all of them don't!) and you lower Q this way, the tuner loses efficiency. Now, I compare all of this to my KW Johnson Matchbox, which has silver strapping connecting the silver plated coils and stuff, and the MFJ does not compare in any way to this sort of quality. The MFJ does a fine job, but if you are after a real high quality tuner, this is not the one. (OF course, I should someday ask someone who knows, just how much difference the tuner will make over my KW matchbox 1db? If that is all, and I have no idea, it is no big deal. But if it is 3db, I would be mad, I usually run QRP power and must struggle to keep every ounce out to the antenna :-).

Clark
WA3JPG

Date: 2 Jan 1994 21:55:53 -0500
From: digex.net!access3!ericr@uunet.uu.net
Subject: Help Getting Cables Inside
To: ham-ant@ucsd.edu

As the thermometer creeps up to 40 degrees F, it's time once again for antenna work.

I'm putting my satellite antennas up on the roof here on Capitol Hill using an N-PAM support.

My question...how do I (easily) get all the cables into the house?

The gear sits next to a hinged basement window, and it appears that unless I replace a window pane with a piece of plexiglass and use feedthroughs, I'll have to remove bricks...of which there are two layers in this 1907 structure (with a gap in between).

Can anyone offer a better solution or relatively easy-to-understand instructions on how to get the bricks out...which looks really messy! [Funny, this was a lot more straight forward overseas. I guess it was because the I didn't own the buildings there :-)]

Please email your suggestions and recommendations. I'll post a summary here if anyone wants it.

Thanks --

Eric, WD3Q

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Date: Mon, 3 Jan 1994 06:13:53 GMT
From: netcomsv!netcom.com!dsa@decwrl.dec.com
Subject: Where to get ladder feed
To: ham-ant@ucsd.edu

In article <2g1n5g\$4u3@convex.convex.com> tonyp@convex.com (honey bunny) writes:
>Well - the poison oak has gone dormant and I've got the time so I'm
>ready to build the rhombic I've been dying to put up. Three things:
>
>o Where can I get open wire feed?

Best bet is to make it. I did this when I used to run ladder line. Get a chunk of 3/8" lexan (plexiglass sheet) and cut it into 7" strips. Drill holes 1/2" in from each end. You now have spreaders. Now gets lots of wire. Put one spreader every 10 feet or so. You now have ladder line. Dirt cheap, too.

>
> As I recall a rhombic likes something in the order of 600-ohm
> feed, but I just saw another note on the TEN-TEC 228, which is
> what I have, and it doesn't like anything over 500 ohms, so I
> guess I need to go with 450-ohm feed.

The characteristic impedance of ladder line is determined by the distance between the conductors. You should find the formula for this in the ARRL Antenna handbook. For, 450 ohm I would guess that you'd need 3" spacing.

>o What is the best antenna book to peruse for hints on how to
> construct this thing?

Hmmm. The W8JK book is pretty good. RSGB had a good wire antenna book. The ARRL book is a bit thin on this stuff. And look for OLD handbooks -- rhombics are antennas from the days when you could afford the real estate for them.

> I'm not going to be able to put it into the diamond shape
> it should be in - more like a rectangle. The height will be
> proportional to the guts I have available when climbing the
> oaks... :-)

This lack of diamond shape will change the pattern of the antenna. You might not get what you want. The rhombic gets its pattern from those angles -- without good graphics, it's pointless to try to describe how this is done in a text description here; try to find a diagram of how a unterminated rhombic or terminated rhombic fires; you'll see that the angle of the wire in the feed corner and the opposite corner are reasonably important. The underlying idea in the rhombic is the angle of radiation from a long wire > one wavelength coming off a long wire at something like 12.5 degrees... the legs of the rhombic are considered individual long wires in the analysis.

>o Where can I get the 600-ohm resistor needed at the far end?

Oh, a variety of places used to make big oil-cooled carbon resistors. I don't know that anyone makes such a beast right now. Folks?

> I understand that if I make it "one big loop" I'll have
> designed a "cloud warmer".

No, this isn't necessarily the case. Look into past _QST_ and _Ham Radio_ articles about loop antennas turned on their sides -- someone once referred to this ideas as the "Texas Shitraker" antenna. There is also the idea of using the full-wave loop (ie, the driven element from a quad) turned on its side as a decent high-angle radiator.

> Also, is there some magic that
> takes place that requires a higher wattage or will a 100-watt
> resistor do the job because I'm running only 100-watts output?

100 watts in requires a 100 watt resistor. Note that there are terminated

rhombics (which fire in one direction) and unterminated rhombics (which are bi-directional). Unterminated means that the other end is open, I seem to recall.

dsa

End of Ham-Ant Digest V93 #161
